January 25, 2002

EX PARTE

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: ***WT Docket No. 01-184***

Dear Ms. Salas:

As co-author of the book *Information Rules*[1], I am writing to correct the record in the above referenced proceeding regarding the application of lock-in and switching cost theory to local number portability. My focus will be on the interpretation of various statements drawing upon the discussion of this topic in *Information Rules*.

Recently, Leap Wireless filed an Ex Parte citing *Information Rules* to support its proposition that wireless number portability is necessary to prevent "lock-in" of customers and to facilitate competition in the wireless communications market.[2] Leap drew a number of problematic conclusions from one chapter of the book, Chapter 5 ("Recognizing Lock-In") and did not acknowledge important conclusions relating to how to manage lock-in in a competitive market that are contained in Chapter 6 ("Managing Lock-In").

Leap cites *Information Rules* to claim that number immobility is a classic "switching cost" and that switching costs hinder competition.

> "Everyone recognizes that number portability is critical . . .[t]he cost per person of changing phone numbers may not be huge but when you add up these costs across millions of telephone subscribers, the stakes grow large." Leap *Ex Parte* at 3, quoting *Information Rules* at 108-109 (but

[1] Carl Shapiro and Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, Harvard Business School Press (1999).
[2] *See* Letter from William S. Carnell to Secretary Magalie Roman Salas, January 11, 2002. WT Dkt. No. 01-184. Leap also relied on *Information Rules* extensively in its Reply Comments. Reply Comments of Leap Wireless International, Inc., WT Dkt. No. 01-184. October 22, 2001.

substituting [. . .] for the following qualifying words: *if local telephone competition is to become a reality*).

"In a competitive market, 'the profits that you earn from a customer- on a going forward, present value basis- exactly equal the total switching costs.'" Leap *Ex Parte* at 2, citing *Information Rules* at 114.

My responses to these statements are as follows:

- The local number portability discussion in the book was in reference to previously regulated landline telephone markets. The book does not draw any conclusions about whether or not the lack of number portability locks customers into current providers in the wireless market.

- In a fully competitive market, companies will not benefit from any profit attributable to switching costs, but instead will spend additional money up front in "sweeteners" to win over and acquire customers. As we indicate on page 145:

  > "In the presence of lock-in, intense competition will force you to offer very attractive initial terms to customers, so that on an overall, life-cycle basis, you would earn no more than a normal rate of return on your investments."

- Switching costs in a competitive market do not inevitably harm customers. In fact, the higher the switching cost, the greater the inducement a competitor will likely offer to acquire a new customer. For example, in the wireless context, such inducements could take the form of free or subsidized handsets. If switching costs are eliminated, competitors will have less incentive to offer up-front sweeteners to acquire customers.

Information Rules does not draw the conclusion or provide support for a conclusion that lock-in effects in a competitive market represent a market failure that should necessarily be cured by government regulation. Indeed, Chapter 6 of *Information Rules* is devoted to market-based strategies for both buyers and sellers to "manage" lock-in, which is an increasingly common phenomenon in competitive, high technology markets today. The appropriateness of regulation with respect to lock-in will, in general, depend on the degree of competition present in the industry, as well as the costs of complying with the regulation.

Very truly yours,

Hal R. Varian